



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

C3-3-9

Job Sheet 184715



Part No: C3-3-9

Job Qty: 20 ea

Part Name: Actuator Spring



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 10/16/18

Job Tracking No:

Due Date: 11/9/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG C3-3-9 Rev. 2 IPP Rev. A 18.09.19 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	20 pcs		11/9/18			VIC002-VC	20	NOV 17 2018
110	Packaging	20 pcs		11/9/18	0.00	0.00	Packaging2		NOV 17 2018
120	QC	20 pcs		11/9/18	0.00	0.00	QC6		38
130	Packaging	20 pcs		11/9/18	0.00	0.00	Packaging3		9-99
140	QC21-FG	20 Ea		11/9/18	0.00	0.00	QC21		NOV 19 2018

Part Op 100 - 1-Issue P/O to Victory Springs P/O# 41384 2-Fabricate springs as per DWG.
Descriptions: 120 - Dimensional check. Ensure springs are bent as per DWG.

OCT 19 2018

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13
9-99

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
C3-3-9P	Actuator Spring	20 pcs (1 ea)	100-Purchasing	5128684

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	C3-3-9P	20	4	0

Part Specifications

Specifications could not be found.

Plex 10/16/18 11:00 AM Dart.lajeunesse.marie



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S128685



Part: C3-3-9

Job No: 184715

Serial No/Batch: S128685

Revision: 2

Inspector:

Exp Date:

Instructions:

Date: 11/17/18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

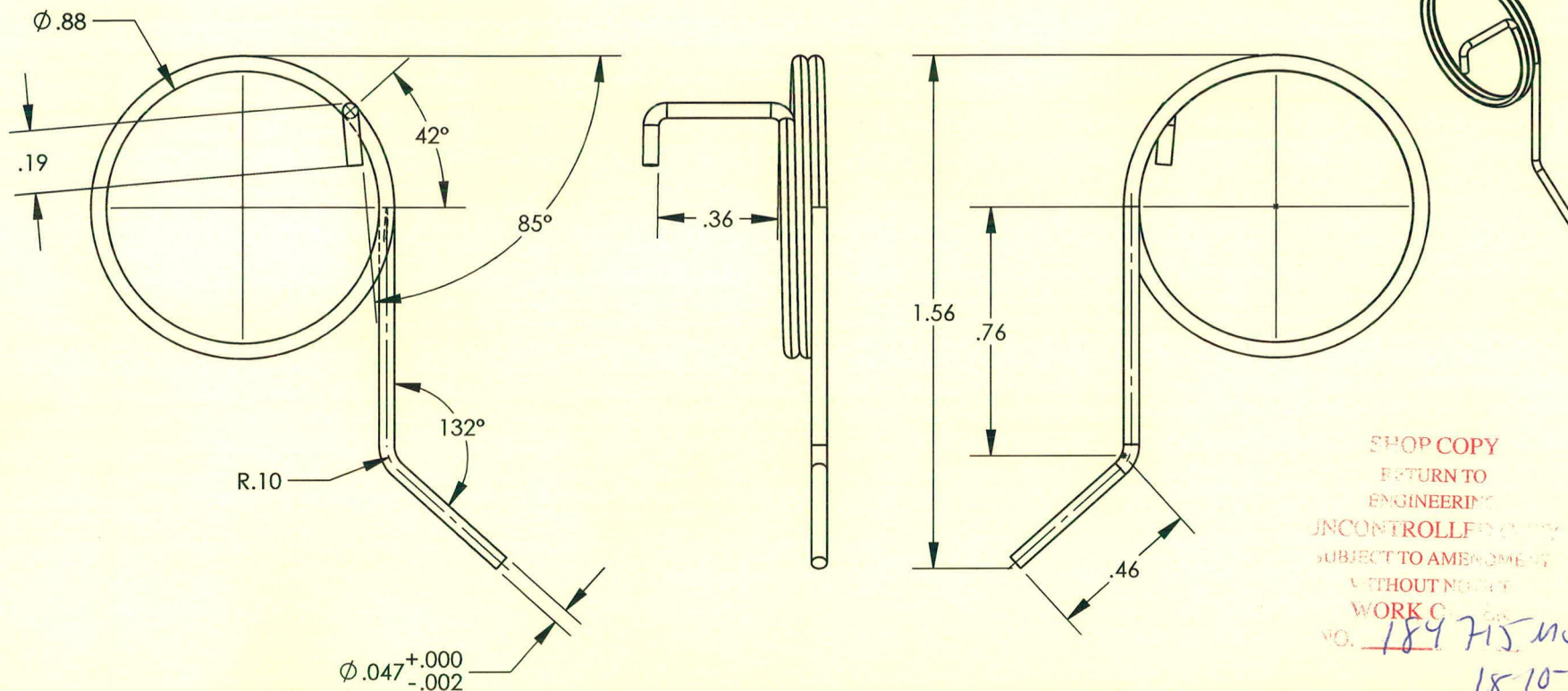
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
		INCORPORATED ECN 03175 PER APICAL INDUSTRIES DRAWING.	7/18/11		
1		CH'D DIA FROM .043 TO .047. CH'D ANGLE FROM 31 TO 55. REMOVED DIM .028. RELOCATED DIM .19. CH'D TOLERANCES ON ALL DIMENSIONS.	4/25/14	PW	RW
2	14-0150	CH'D TITLE BLOCK WAS RED BARN IS DART. CH'D DIMS WAS 55° IS 85°, WAS 72° IS 42°, WAS 1.55 IS 1.56.	9/17/2014	DPD	PW



SHOP COPY
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ENGINEERING
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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK C
NO. 184715 MW
18-10-16

DART AEROSPACE	
TITLE ACTUATOR SPRING	
DWG NO. C3-3-9	REV 2
MAT'L SS 304 WIRE	DRAWN BY: APICAL
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1	APPROVED <i>D Weid</i>
1. BREAK ALL SHARP EDGES .015 x 45°	HEAT TREAT
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	FINISH
	SPEC
	USED ON MODEL
SCALE 2:1	DATE 7/18/2011
SHEET 1 OF 1	

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS
		B/O	C3-3-9	1	ACTUATOR SPRING	SS 304 WIRE	Ø.047 X 8 DENDOFF



Dart Aerospace Ltd.
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Canada

Tel (613) 632-5200

PURCHASE ORDER PO041384

Supplier: DEN002-VC
Dendoff Springs LTD.
12045 Old Yale Road
Surrey
BC
V3V 3X4
Phone: 604 580 3400
Fax: 604 580 3600

PO No: PO041384
PO Date: 10/19/18
Due Date: 11/20/18
**Purchase Order
Revision:**
Revision Date:
Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Fedex P1 Overnight
Pymt Terms: Net 30
Freight Terms: Collect
Special Comments: quote no. 26106

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	184715	C3-3-9P		Actuator Spring AS PER DWG C3-3-9 REV. 2	Firmed	-	11/14/20	53 pcs	0 pcs	53 pcs	\$11.50/pcs	\$609.50

53x NOV 17 2018

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38
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Line Item Note TORSION TO DRAWING # HELT-002
0.047" DIA. ST302
0.880" ID
0.974" OD +/- .020"
2.117 NT REF. - RHW
ARM ORIENTATION TO DWG. +/- 5 DEGREE
ARM LENGTH TOL. +/- .032"

Grand Total: \$609.50

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program
A049 supplier awareness

Plex 11/17/18 7:43 AM dart.belanger.natasha

246
85
104



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Revision Date:

Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com

E-MAILED
OCT 19 2018

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Special Comments: quote no. 26106

Items

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Line Item Note TORSION TO DRAWING # HELT-002
0.047" DIA. ST302
0.880" ID
0.974" OD +/- .020"
2.117 NT REF. - RHW
ARM ORIENTATION TO DWG. +/- 5 DEGREE
ARM LENGTH TOL. +/- .032"

Grand Total: \$575.00

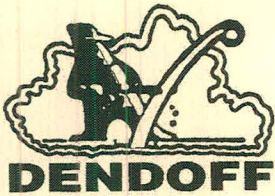
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A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program
A049 supplier awareness

CL

Plex 10/19/18 10:32 AM dart.lavoie.chantal



DENDOFF SPRINGS LTD.
12045 OLD YALE ROAD
SURREY, BC V3V 3X4
Canada

Ph: 604-580-3400

Fax: 604-580-3600

Pack List

Number: 52988

Date: 09-Nov-18

To

DART AEROSPACE LTD
1270 Aberdeen St
Hawkesbury,, ON K6A 1K7
Canada

Ship To

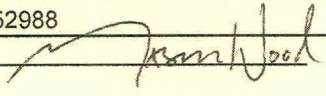
Chantal Lavoie
DART AEROSPACE LTD
1270 Aberdeen St
Hawkesbury,, ON K6A 1K7
Canada

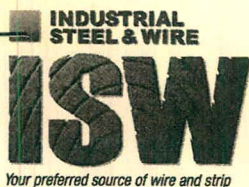
Ph: 613-632-5200

Fax: 613-632-4443

Ph: 613-632-5200

Fax: 613-632-4443

Terms		Ship Via	
Net 30 days		Fed Ex	
Quantity	Description		
53 ea	Part: HELT-002 C3 - ACTUATOR SPRING C3-3-9 C3-3-9 REV. 1 Job: 74213	Rev: 2 PO: PO041384	Line:
	MATERIAL PO 17511 .0475" T302 STAINLESS HEAT # 52988		
	Signature 		
	DQR-057 Rev. 0 May 2003		



1901 N. Narragansett Ave. • Chicago, Illinois 60639
773/804.0404 • Fax 773/804.0408
www.industeel.com

An ISO 9001 Certified Company

06/16/17

ISW Order/Invoice Number: 282352-00

SOLD TO: D3996
DENDOFF SPRINGS, LTD.
12045 OLD YALE ROAD
SURREY, B.C.
CANADA V3V 3X4

SHIP TO: D3997
DENDOFF SPRINGS LIMITED
12045 OLD YALE ROAD
SURREY, B.C.,
CANADA V3V-3X4

DAS
38
9-89

CUSTOMER PO: 17511

0475SSBC

.0475" 302 STAINLESS WIRE N/M COILS

WEIGHT: 51

HEAT NUMBER: NS9320

CHEMISTRIES

C	Mn	P	S	Si	Cr	Ni	N
.065	1.470	.035	.008	.380	18.280	8.020	
Mo	Cu						
.260	.260						

PHYSICAL PROPERTIES

TENSILE: 278282 279691

TORSIONS:

ROCKWELL #1:

BENDS:

ROCKWELL #2:

SALT SPRAY HOURS:

YIELD STRENGTH: 000000/000000

COATING WEIGHT:

ELONGATION:

GRAIN SIZE:

REDUCTION OF AREA:

**** MERCURY FREE ****

*** SPECIFICATIONS ***

TARIFF: 7223.00

ASTM A313-13

NAFTA:

AMS 5688-L

SAE J230-94

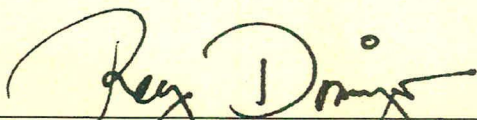
MELT: IN INDIA

ORIG: IN INDIA

MILL: NEVATIA STEEL & ALLOYS

DFAR: N

ROHS: Y


Rey Domingo, Quality Control Manager

The values and specifications herein are passed through from the manufacturer directly to the customer.

Please see reverse side or www.industeel.com for all Terms and Conditions of Sale.

Material Properties Sheet 70403-MPS Version 1 Approved by BF 11/20/12

Chantal Lavoie

Reply all |

Yesterday, 2:26 PM

Natasha Belanger; Eric Downing; Patrick Duval; Eric Berr

Inbox

DART PS 52988.pdf
400 KB

DART PS 52869.pdf
403 KB

Show all 2 attachments (803 KB) Download all Save all to OneDrive - Eagle Copters Ltd

Hi Natasha,

See attached for the revised packing for Dendoff, no c of c required as long as the heat # from mat'l cert is marked on the packing slip.

Thanks

Chantal

